5616596313

T-676 P.02 Job-319

RECEIVED CENTRAL FAX CENTER

FEB 0 1 2008

Attorney Docket No: 3926.237

Application No: 10/566,624 Amendment A Reply to Office Action Dated 11/29/2007

IN THE CLAIMS:

The following listing of claims replaces any earlier listing:

- 1-15. (canceled).
- (currently amended) [[A]] The process according to Claim 25, eylinder head for an 16. internal combustion engine with a metallic valve seat ring, the valve seat ring comprising a Co or Co/Mo base alloy deposited in a homogeneous layer upon the cylinder head by an are wire spray process, wherein the thickness of the layer is between 0.1 and 2 mm, wherein the sum of the Co and Mo content is greater than 50 wt.% and wherein the Fe content is below 5 wt.%.
- (currently amended) [[A]] The process eylinder-head according to Claim [[16]] 25, 17. wherein the Cr content of the Co/Mo base alloy is from 5 to 30 wt.%.
- (currently amended) [[A]] The process eylinder head according to Claim [[16]] 25, 18. wherein the nominal chemical composition of the deposited layer in wt.% is: Mo 25 to 35%, Si 1 to 4%, Fe less than 3%, Cr 5 to 20%, C 0.05 to 1%, remainder Co and trace components of less than 1%.
- (currently amended) [[A]] The process eylinder head according to Claim [[16]] 25, 19. wherein the component of free Mo and/or Co not bound in the Co/Mo base alloy is below 10 Vol.%.
- (currently amended) [[A]] The process eylinder-head according to Claim [[16]] 25, 20. wherein the porosity of the spray deposited layer is below 5%.

{WP466928;1}

Application No: 10/566,624

Amendment A

Reply to Office Action Dated 11/29/2007

Attorney Docket No: 3926.237

- 21. (currently amended) [[A]] The process cylinder-head according to Claim [[16]] 25, wherein the Co/Mo base alloy has a Co content of at least 45 wt.%.
- 22. (currently amended) [[A]] The process eylinder head according to Claim [[16]] 25, wherein the thickness of the spray deposited layer is in the range of 0.5 to 2 mm.
- 23. (currently amended) [[A]] The process eylinder-head according to Claim [[16]] 25, wherein the content of the metal oxides or metal nitrides in the spray deposited layer is below 2 wt.%.
- 24. (cancelled).
- 25. (currently amended) A process for producing a thermal sprayed valve scat ring, wherein said process comprising;

deposition the valve seat ring is-deposited, by an arc wire spray process, using with a Co-rich filled wire and a Cr and/or Ni rich filled or solid wire, as a homogenous layer of a Co/Mo base alloy upon a substrate material of a cylinder head,

wherein said filled wires comprise a jacket and a filler, and wherein a substantial proportion of the Co in the deposited layer is supplied by the jacket of the filled wire.

- 26. (currently amended) [[A]] <u>The process according to Claim [[24]] 25</u>, wherein the jacket of the Co rich filled wire or the matrix of the Co rich composite wire has a Co content above 90 wt.% and a Fe content in the range of 0.5 to 5 wt.%.
- 27. (currently amended) [[A]] <u>The process according to Claim [[24]] 25</u>, wherein the [[core]] <u>filler of the Co rich fill filled wire essentially comprises Mo, Cr, Ni and/or Si.</u>

{WP466928;1}

Application No: 10/566,624

Amendment A

Reply to Office Action Dated 11/29/2007

Attorney Docket No: 3926.237

- 28. (currently amended) [[A]] The process according to Claim 24, wherein the filled wire is produced from a Co strip or a Co pipe and wherein the filler metallic components are in powder form.
- 29. (currently amended) [[A]] <u>The</u> process according to Claim [[24]] <u>25</u>, wherein greater than 95% of the material of the filled wire; composite wire or solid wire transition into [[the]] a molten phase during the arc wire spray process.
- 30. (currently amended) [[A]] The process according to Claim [[24]] 25, wherein a carrier gas is employed in the arc wire spray process, and wherein said carrier gas is N₂ or Ar.

(WP466928;1)